Kickoff TMDL Meeting

Banister River and Streams
Pittsylvania and Halifax Counties

January 25, 2007

DEQ
VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

TODAY

1. Background on Water Quality Standards
2. Background on TMDLs
3. Banister River Watershed
4. The TMDL Process
5. Building a TMDL Model: The Louis Berger Group

1. Water Quality Standards

Sections of the Banister River Watershed are not Meeting State Water Quality Standards for Recreation

Purpose of standards is the protection of 6 designated uses

- **Primary Contact Recreation**
- **Aquatic Life**
- **Fishing**
- **Shellfishing**
- **Drinking Water**
- **Wildlife**

1. Water Quality Standards

RECREATION STANDARD: BACTERIA

E. coli

- **Single sample max: 235 counts/100mL**
  (applies to all samples collected)
- **Geometric mean: 126 counts/100mL**
  (applies to two or more samples taken during any calendar month)

Fecal coliform

- **Single sample max: 400 counts/100mL**
- **Geometric mean: 200 counts/100mL**

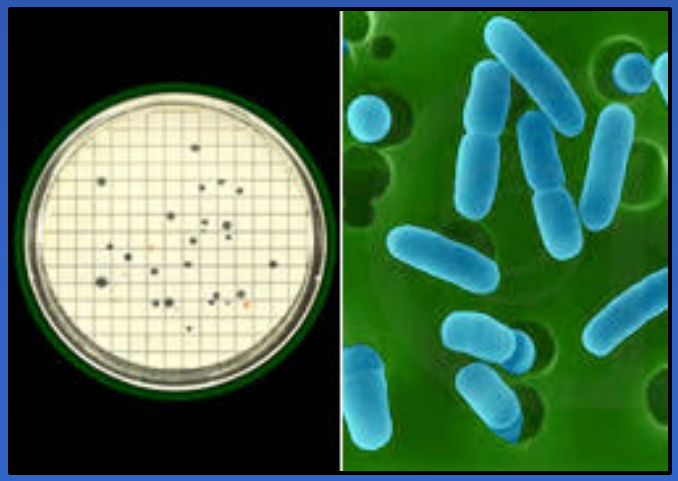
Stream segments are listed as impaired if more than 10% of samples exceed the water quality standards

1. Water Quality Standards

Why Use Bacteria?

- Found in the intestinal tracts of warm-blooded animals
- Indicates fecal contamination

Correlation between bacteria concentrations and incidence of gastrointestinal illness

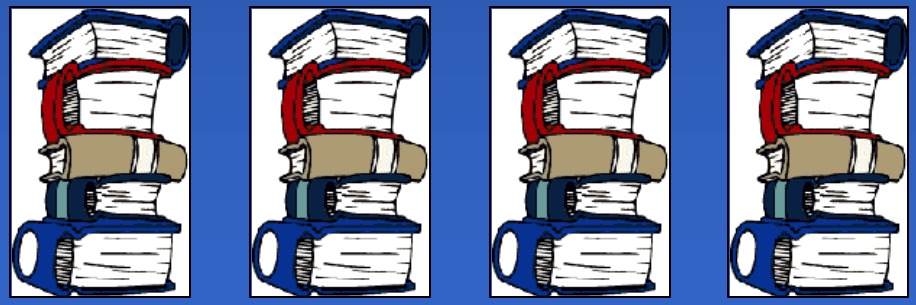


2. Total Maximum Daily Load

Every TWO years, DEQ publishes a list of impaired waters (those not meeting standards)

Virginia is required by law to establish a TMDL for each pollutant causing an impairment**

A TMDL is the amount of a particular pollutant that a stream can receive and still meet Water Quality Standards



** 1972 Clean Water Act (CWA)

** 1997 Water Quality Monitoring Information and Restoration Act (WQMIRA)

2. Total Maximum Daily Load

?

?

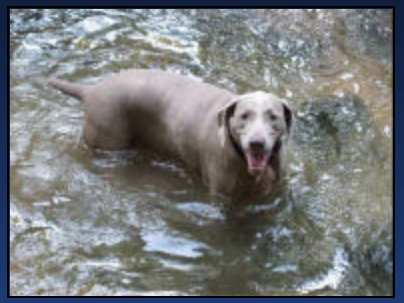
The Big Question:

By how much do we need to reduce E.coli and fecal coliform levels in the Banister R. Watershed to meet state standards?

?

?

2. Total Maximum Daily Load



In order to do this, we will . . .

1. **Identify all sources of pollution**

2. **Quantify each source**

3. **Develop a model that can calculate reductions needed from each source to attain water quality standards**

3. Banister River Watershed

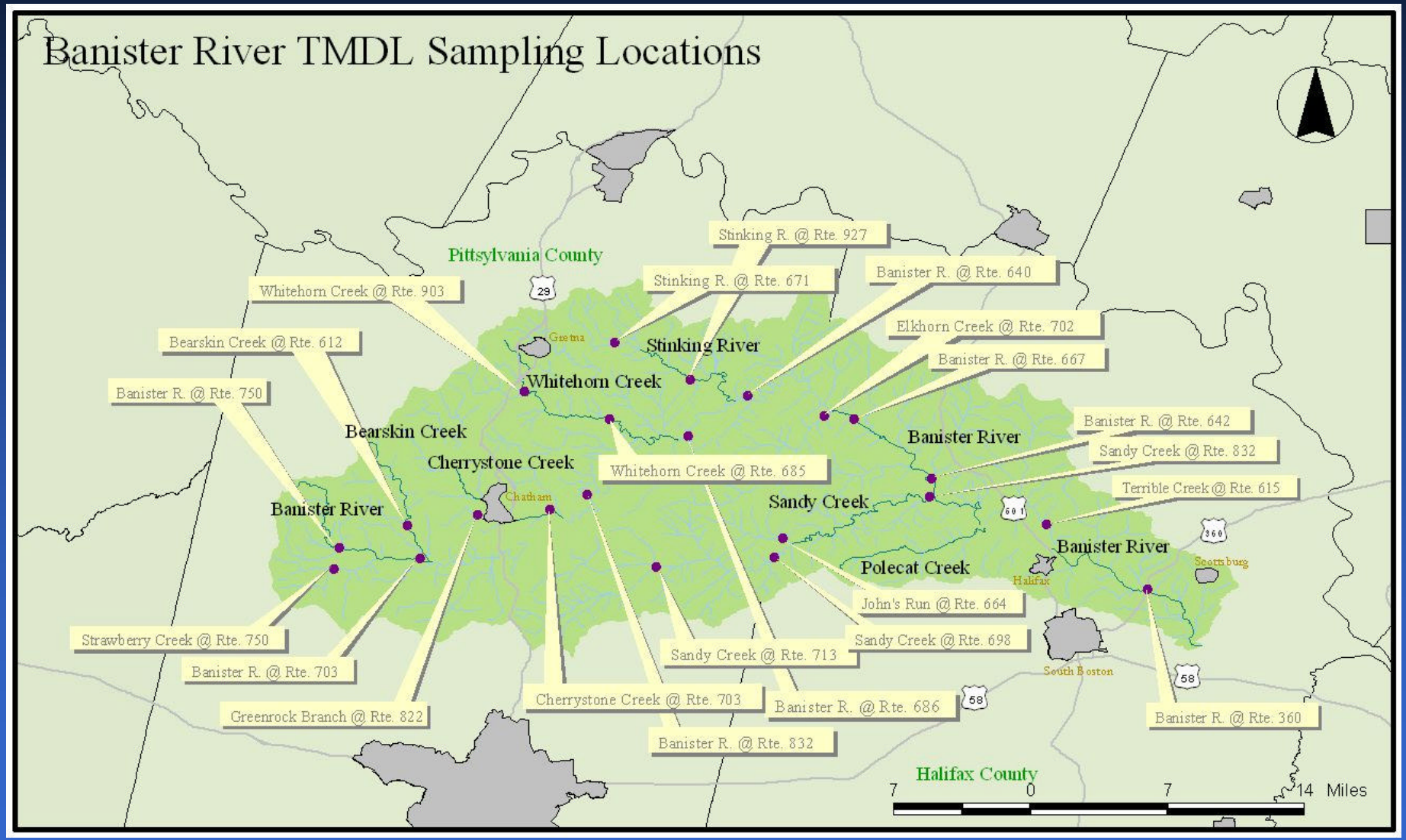
LISTING STATIONS

3. Banister River Watershed

IMPAIRMENTS

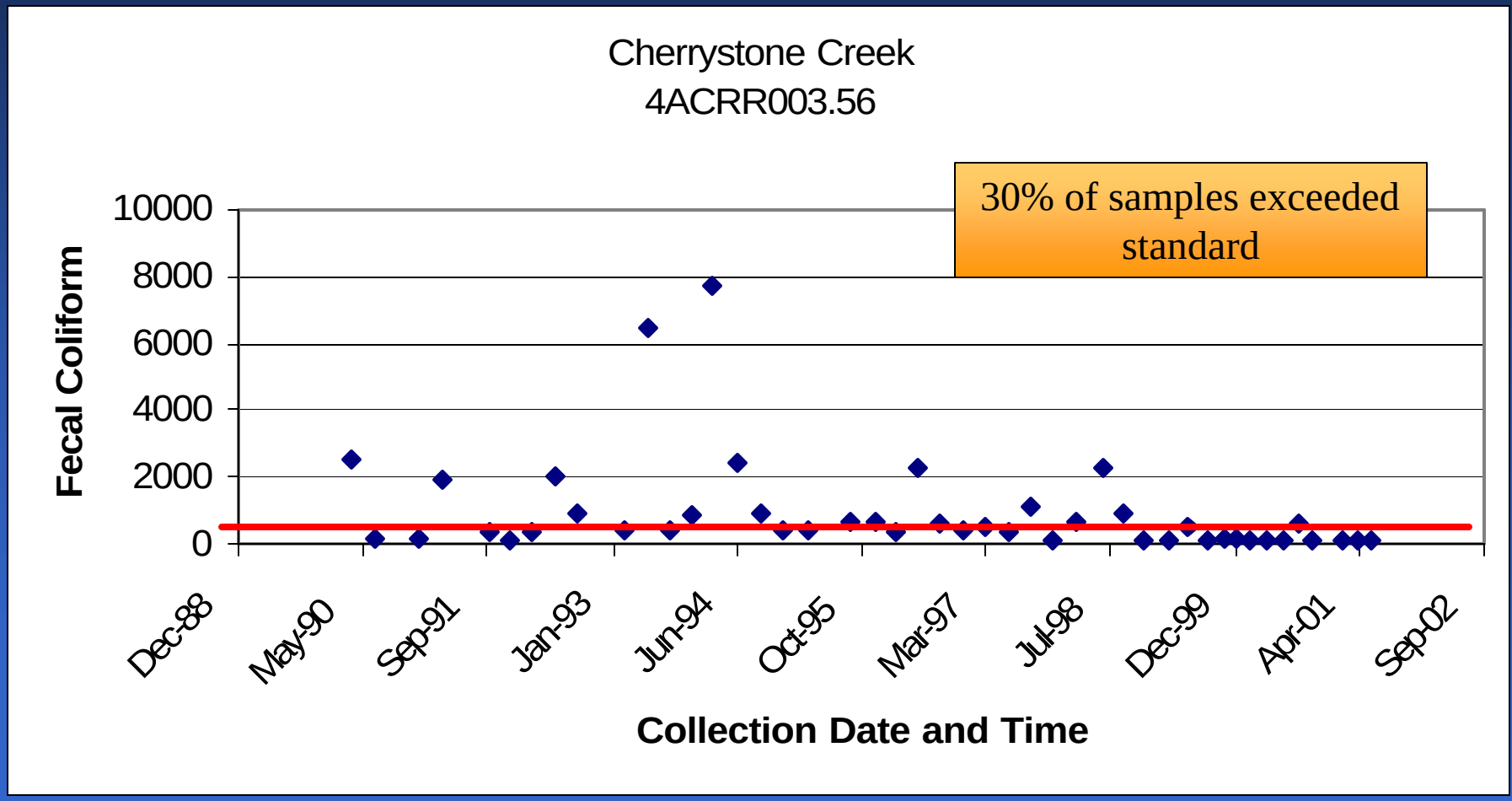
WATERSHED	STREAM NAME	MILES	IMPAIRMENT FOR
Banister	Banister River	11.67	Total Fecal Coliform
	Banister River	13.18	*E. coli*
	Bearskin Creek	9.31	*E. coli*
	Cherrystone Creek	8.44	Total Fecal Coliform
	Polecat Creek	9.66	Total Fecal Coliform
	Sandy Creek	11.78	Total Fecal Coliform
	Stinking River	8.99	Total Fecal Coliform
	Whitehorn Creek	24.73	*E. coli*

3. Banister River Watershed



3. Banister River Watershed

EXAMPLE OF DATA – SEE DISPLAY MAP



4. TMDL Process

- **Form Local Steering Committee** *and gather information*
- **Develop model:** *Local Steering Committee reviews available data and proposed model*
- **First Public Meeting**
- **Local Steering Committee reviews model**
- **Final Public meeting –** 30 day comment period
- **Final revisions and submittal to the EPA**

4. TMDL Process

What you can do to help:

<u>Join the Local Steering Committee!!</u>

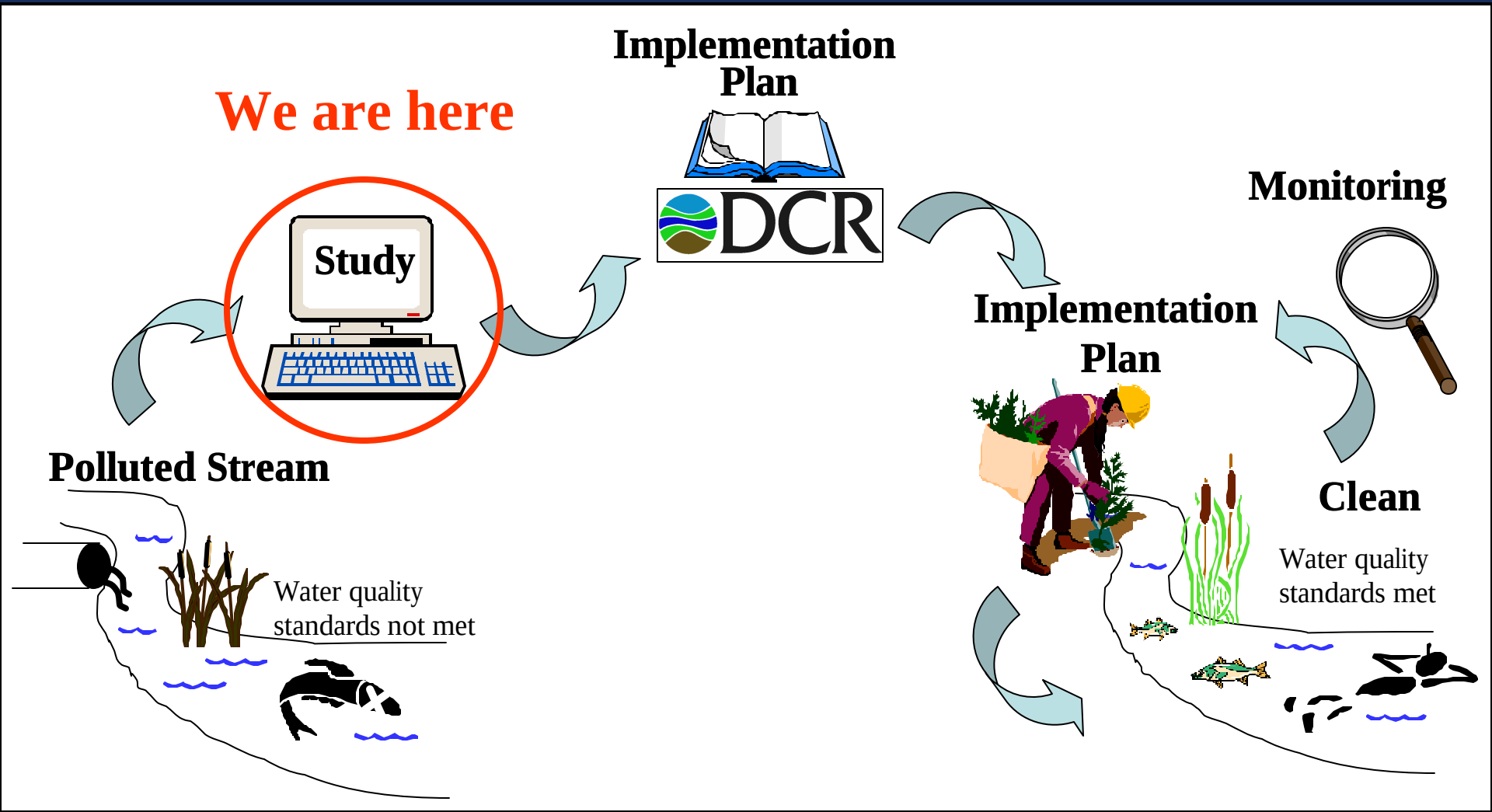
Group of local citizens, landowners, organizations, and government entities that will provide input, review and assistance

Goal: make sure technical aspects of the study are accurate as well as acceptable to the community

Sign up today!

4. TMDL Process

What happens after we develop this TMDL?



Contact

Lauren Theodore
Regional TMDL Coordinator
7705 Timberlake Rd.
Lynchburg, VA 24502

(434) 582-6216
lmtheodore@deq.virginia.gov